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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,631	11/18/2003	Aly M. Ismail	19308.0028U1	4330
23859	7590	05/31/2005	EXAMINER	
NEEDLE & ROSENBERG, P.C. SUITE 1000 999 PEACHTREE STREET ATLANTA, GA 30309-3915			TRAN, PABLO N	
			ART UNIT	PAPER NUMBER
			2685	

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,631

Applicant(s)

ISMAIL, ALY M.

Examiner

Pablo N Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/14/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claim 18 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 18 the claimed limitation "second" renders the claim indefinite. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2 and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Vignali et al. (5,327,580).

As per claims 1 and 16, Vignali et al. teaches a method for filtering a receive signal in a wireless transceiver having a modulator, an up-converter, a transmitter, a direct conversion receiver including an amplifier and a filter (see fig. 1), wherein the filter

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comprising a frequency dependent negative resistance (FDNR) so that noise generated by the filter is prevented from appearing on the received signal at a first frequency (fig. 2A & 2C, col. 7/ln. 64-col. 8/ln. 11).

As per claims 2 and 18, Vignali et al. teaches that noise generated by the filter means appears on the received signal at a second frequency (col. 7/ln. 25-50).

As per claim 17, Vignali et al. teaches first frequency is the in-band receive frequency (col. 7/ln. 64-col. 8/ln. 11).

As per claim 19, Vignali et al. teaches the second frequency is the out-of-band receive frequency(col. 7/ln. 25-50).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vignali et al. (5,327,580) in view of Regan (4,185,150).

As per claims 3, 4, 6 and 11, as stated above in claim 1, Vignali et al. does not suggest the FDNR implement using a general impedance converter (GIC) to realize a bi-quad filter. However, Regan suggested such implementation (col. 2/ln. 32-45).

Therefore, it would have been obvious to one of ordinary skill in the art to provide

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method as suggest by Regan to the FDRN of Vignali et al. to provide and effectively utilizes such wide passive and active impedance range.

As per claims 7 and 12, the modified system of Vignali et al. further disclose a pair of operation amplifiers and at least one capacitance (see Vignali et al., fig. 2A & 2C, col. 7/ln. 64-col. 8/ln. 11, see Regan, col. 3/ln. 47-col. 4/ln. 3).

As per claims 5, 8 and 13, the modified system of Vignali et al. further disclose the first frequency is the in-band receive frequency (see Vignali et al., col. 7/ln. 64-col. 8/ln. 11).

As per claims 9 and 14, the modified system of Vignali et al. further disclose that noise generated by the filter means appears on the received signal at a second frequency (see Vignali et al., col. 7/ln. 25-50).

As per claims 10 and 15, the modified system of Vignali et al. further disclose the second frequency is the out-of-band receive frequency (see Vignali et al., col. 7/ln. 25-50).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lofmark (2001/0019608), Morita (6,008,691), Tanigawa et al. (5,182,522), Greaves et al. (4,686,486), Cheng et al. (4,001,735), McGuire (3,984,639) disclose such filtering arrangements.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pablo Tran whose telephone number is (571)272-7898. The examiner normal hours are 9:30 -5:00 (Monday-Friday). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571)272-7899.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:


(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

PABLO N. TRAN
PRIMARY EXAMINER

May 22, 2005



AU2685